

### Office Action Summary

**Application No.**

10/603,241

**Applicant(s)**

TZIVANIS ET AL.

**Examiner**

ALVIN A. HUNTER

**Art Unit**

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-23 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23 and 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25 depends from claim 24 which is a cancelled claim. For examination purposes claim 25 will be treated as being dependent from claim 21.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-23, 26, 28, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Sullivan et al. (USPN 61259110).

Regarding claim 21, Sullivan et al. discloses a game ball having enhanced interlayer adhesion comprising a first layer having a bonding surface, the bonding surface having an adhesion improvement treatment comprising treating the bonding surface with a silicone-based adhesion promoter and a second layer having a surface joined to the bonding surface, wherein the silicone-based adhesion promoter is a

silsesquioxane oligomer (See Column 2, lines 40 through 47, and Column 28, lines 24 through 30).

Regarding claim 22, Sullivan et al. discloses the game ball being a golf ball. Regarding claim 23, Sullivan et al. discloses one of the first or second layers is a golf ball mantle comprised of a material selected from at least one of polyurethane, ionomer, terpolymer, metallocene catalyzed polyolefin, polyamide block copolymer and polyester/polyether block copolymer and the other of the first or second layers is a golf ball cover comprised of a material selected from at least one of polyurethane, ionomer, terpolymer, metallocene catalyzed polyolefin, polyamide block copolymer and polyester/polyether block copolymer (See Column 2, lines 48 through 60).

Regarding claim 26, Sullivan et al. discloses the treatment further comprises post treatment of the game ball at an elevated temperature for a predetermined amount of time (See Columns 34 through 36).

Regarding claim 28, Sullivan et al. discloses a process for improving adhesion strength between a first and second layer comprising treating the first layer with a silicone-based adhesion promoter and joining the second surface to the first surface (See Entire Document).

Regarding claim 30, Sullivan et al. discloses the silicone-based adhesion promoter is a silsesquioxane oligomer (See Column 2, lines 40 through 47, and Column 28, lines 24 through 30).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 61259110).

Regarding claims 25 and 31, Applicant does not state why a particular silsesquioxane oligomer is critical in order to attain the invention. One having ordinary skill in the art would have found such to be an obvious matter of design choice. Any type of silsesquioxane or silicon based composition as disclosed by Sullivan et al. would perform equally as well because it promotes adhesion.

Claims 27, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. (USPN 6159110) in view of Maruko (USPN 6071201 ) and Kitaoh et al. (USPN 4871589).

Regarding claim 27, 29, and 32, Sullivan et al. does not disclose roughing a bonding surface or plasma treating a bonding surface. Maruko discloses a golf ball having a layer roughened in order to increase the adhesion between two layers (See Column 4, lines 55 through 64). One having ordinary skill in the art would have found it obvious to roughen a surface, as taught by Maruko, in order to further promote adhesion. Kitaoh et al. discloses a golf ball wherein a layer is plasma treated (See Background of the Invention). One having ordinary skill in the art would have found it

obvious to plasma treat a surface, as taught by Kitaoh et al., in order to further promote adhesion.

### ***Response to Arguments***

Applicant's arguments filed 10/04/04 have been fully considered but they are not persuasive. Applicant argues that Sullivan et al. does not teach a silsesquioxane oligomer with respect to claim 21. The examiner disagrees. Sullivan discloses that the silicone resin can be made of a hydrolyzed silane containing  $\text{CH}_3\text{SiCl}_3$  and  $\text{C}_6\text{H}_5\text{SiCl}_3$ . The examiner cited within the previous action, though was not relied upon, non patent literature pertaining to Silicone wherein pages 15 and 16 describe T resins wherein the T resin are created from hydrolyzed  $\text{CH}_3\text{SiCl}_3$  and  $\text{C}_6\text{H}_5\text{SiCl}_3$  wherein the reference noted that T resins are generally known as silsesquioxanes. Thus in light of the above, having a silsesquioxane oligomer is inherent within Sullivan.

Applicant also argues that any oligomer would not be suitable for the instant invention with respect to claims 25 and 31. The examiner disagrees. Applicant acclaims that the examiner has not taken not of Table 3 wherein it shows different adhesion methods. The examiner has considered Table of 3 of the specification, however, for table 3 it is not seen how this conclusion can be correct. According to Table 3, the silsesquioxane oligomer had good to very good result whereas example 5 also resulted in good to very good adhesion. Furthermore, Column 18, lines 12 through 23 notes that m is greater than 2 implying that the molecular weight of the composition can be as large as one desires it to be. Also, Applicant is not solely using the oligomer to promote the adhesion the adhesion is a combination of roughening and the oligomer.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ALVIN A. HUNTER** whose telephone number is **(571)272-4411**. The examiner can normally be reached on Monday through Friday from **7:30AM to 4:00PM Eastern Time**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene Kim, can be reached on **571-272-4463**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3711

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Alvin A Hunter/

Primary Examiner, Art Unit 3711